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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,260	12/03/2003	Toshiki Sugawara	655-004c2	7804
39600	7590	07/16/2007		
SOFER & HAROUN LLP. 317 MADISON AVENUE, SUITE 910 NEW YORK, NY 10017			EXAMINER SINKANTARAKORN, PAWARIS	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 07/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/728,260

Applicant(s)

SUGAWARA ET AL.

Examiner

Pao Sinkantarakorn

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract should be within the range of 50-150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 2-5 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Asai (US 5402,414).

Regarding claims 2 and 10, Asai discloses an optical communication system (see column 9 lines 57-63) for transmitting optical signals transmitted on a plurality of

first optical transmission lines to a plurality of third optical transmission lines via a second optical transmission line, comprising:

a first optical transmission unit connected to the first and second optical transmission lines (see fig. 12 reference 24W and 25W overhead data inserting unit and MUX and column 9 lines 5-9), for receiving first optical signals transmitted on the first optical transmission lines (see fig. 12 Z2 and E2 connected to 24W) and transmitting a second optical signal obtained from the first optical signals to the second optical transmission line (see column 8 line 39- column 9 line 15 and fig. 12, signal F2W transmitted from E/O converter 26W, the F2W is transmitted from one of DA, DB, DC, DD, or DE to its neighbor node, see fig. 4), and

a second optical transmission unit connected to the second and third optical transmission lines (see fig. 12 reference 22W and 23W overhead data extracting unit and DMUX and column 8 lines 54-63), for receiving the second optical signal from the second optical transmission line (see fig. 12 signal transmitted from DMUX to overhead data extracting unit and column 8 lines 54-63) and transmitting third optical signals obtained from the second optical signal to the third optical transmission lines (see column 8 lines 54-63, after the signals are demultiplexed and extracted, the signals are transmitted to the Z2 detecting unit),

wherein the first optical transmission unit extracts optional information included in a plurality of first overheads of the first optical signals and enters the optional information extracted into a region which is not occupied for use in a second overhead of the second optical signal (see column 9 lines 5-9, the Z2 byte, which is a portion of

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overhead data, is inserted to the overhead data by the overhead data inserting unit and outputted to the MUX 25W, the overhead data corresponds to the region which is not occupied for use because the overhead portion is for overhead data Z2 and E2) and transmits the second optical signal comprising the optional information in the second overhead to the second transmission line (see column 8 line 39- column 9 line 15 and fig. 12, signal F2W transmitted from MUX through E/O converter 26W, the F2W is transmitted from one of DA, DB, DC, DD, or DE to its neighbor node, see fig. 4); and

the second optical transmission unit extracts the optional information in the second overhead of the second optical signal and enters the optional information extracted into a plurality of regions allotted for each of the optional information in a plurality of third overheads or third optical signals (see column 8 lines 54-63, DMUX demultiplexes signals, extracts Z2 and E2 bytes of overhead portion and transmits the Z2 and E2 bytes to a Z2 detecting unit) and transmits the third optical signals comprising the plurality of optional information in the third overheads to the third transmission lines (see fig 12 and column 8 lines 54-63, after the signals are demultiplexed and extracted, the signals are transmitted to the Z2 detecting unit; then the Z2 detecting unit passes on the Z2 byte to the Z2 inserting unit for inserting the Z2 byte into the overhead area of the optical signal);

regarding claims 3 and 11, the second optical transmission line transmits the second optical signal faster than the first and third optical transmission lines (it is inherent that the bit rate increases when the signals are multiplexed), and the first optical transmission unit multiplexes the first optical signals to obtain the second optical

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signal (see column 8 line 39- column 9 line 15 and fig. 12, signal F2W transmitted from MUX through E/O converter 26W, the F2W is transmitted from one of DA, DB, DC, DD, or DE to its neighbor node, see fig. 4), and the second optical transmission unit demultiplexes the second optical signal to obtain the third optical signals (see column 8 lines 54-63, after the signals are demultiplexed and extracted, the signals are transmitted to the Z2 detecting unit);

regarding claims 4 and 12, the first optical transmission unit multiplexes the optional information and enters the optional information multiplexed into the region which is not occupied for use in the second overhead of the second optical signal multiplexed (see column 9 lines 5-9, the Z2 byte, which is a portion of overhead data, is inserted to the overhead data by the overhead data inserting unit and outputted to the MUX 25W, the overhead data corresponds to the region which is not occupied for use because the overhead portion is for overhead data Z2 and E2), and the second optical transmission unit demultiplexes the optional information multiplexed and enters the optional information demultiplexed into the plurality of the regions allotted for the optional information in the plurality of third overheads of the third optical signals demultiplexed (see column 8 lines 54-63, DMUX demultiplexes signals, extracts Z2 and E2 bytes of overhead portion and transmits the Z2 and E2 bytes to a Z2 detecting unit; then the Z2 detecting unit passes on the Z2 byte to the Z2 inserting unit for inserting the Z2 byte into the overhead area of the optical signal);

regarding claims 5 and 13, further comprising a system management unit connected to the first and second optical transmission units, for indicating the optional

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information to be extracted and the region which is not occupied for use in the second overhead to the first and second optical transmission unit (see fig 12, Z2 detecting unit).

Claim Rejections - 35 USC § 103

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai in view of Huscroft et al. (US 6,188,692).

Regarding claims 6 and 9, Asai disclose all the subject matter of the claimed invention except a transmission unit, wherein the first optical transmission unit extracts first information concerning a number of errors included in a plurality of first overheads of first optical signals and adds a number of errors detected from the first optical signals to the number of errors of the first information.

However, the invention of Huscroft et al. from the same or similar fields of endeavor disclose an overhead processor which provides extraction of path overhead, and extraction of the synchronous payload envelop and accumulation of error counts at each level (see column 5 lines 59-67).

Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement an error monitoring apparatus as taught by Huscroft et al. into the transmission apparatus of Asai.

The motivation for implementing an error monitoring apparatus is that it provides performance monitoring which could lead to increase in efficiency of the system.

Regarding claim 7, Asai discloses an system, wherein the second optical transmission line transmits the second optical signal faster than the first and third optical transmission lines (it is inherent that the bit rate increases when the signals are multiplexed), and the first optical transmission unit multiplexes the first optical signals to obtain the second optical signal (see column 8 line 39- column 9 line 15 and fig. 12, signal F2W transmitted from MUX through E/O converter 26W, the F2W is transmitted

from one of DA, DB, DC, DD, or DE to its neighbor node, see fig. 4), and the second optical transmission unit demultiplexes the second optical signal to obtain the third optical signals (see column 8 lines 54-63, after the signals are demultiplexed and extracted, the signals are transmitted to the Z2 detecting unit);

regarding claims 8, the first optical transmission unit multiplexes the optional information and enters the optional information multiplexed into the region which is not occupied for use in the second overhead of the second optical signal multiplexed (see column 9 lines 5-9, the Z2 byte, which is a portion of overhead data, is inserted to the overhead data by the overhead data inserting unit and outputted to the MUX 25W, the overhead data corresponds to the region which is not occupied for use because the overhead portion is for overhead data Z2 and E2), and the second optical transmission unit demultiplexes the optional information multiplexed and enters the optional information demultiplexed into the plurality of the regions allotted for the optional information in the plurality of third overheads of the third optical signals demultiplexed (see column 8 lines 54-63, DMUX demultiplexes signals, extracts Z2 and E2 bytes of overhead portion and transmits the Z2 and E2 bytes to a Z2 detecting unit; then the Z2 detecting unit passes on the Z2 byte to the Z2 inserting unit for inserting the Z2 byte into the overhead area of the optical signal).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakamura et al. (US 5,857,092) and Koyanagi (US 5,291,486) are cited to show systems/methods considered pertinent to the claimed invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pao Sinkantarakorn whose telephone number is 571-270-1424. The examiner can normally be reached on Monday-Thursday 9:00am-3:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PS



RICKY Q. NGO
SUPERVISORY PATENT EXAMINER